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## **ABSTRACT**

## Method to divide upstream timestots in a time division multiple access system, related line terminator and related network terminator

A method to divide upstream timeslots in a multiple access system that couples a line terminator (LT) via a tree-like network to a plurality of network terminators (NT1, NT2, ..., NT16) and that distributes downstream data packets by the line terminator to the plurality of network terminators. The method includes the following steps:

- inclusion by the line terminator in a downstream data packet at a predefined place of a grant (TEA1; TEA2; ...; TEA16) being associated to one of the plurality of network terminators and distributing that downstream packet,
- reacting by the network terminator upon reception and recognition of its own grant by transmitting an upstream data packet in a predefined upstream timeslot.

In the event when the network terminator is a lower order network terminator and the predefined place is a predefined first place, the upstream data packet are transmitted in a lower order timeslot.

In the event when the network terminator is a higher order network terminator and the predefined place is a predefined first place, the upstream data packet is transmitted in one of a plurality of higher order timeslots, where the higher order timeslots are subslots of a predefined number of higher order subslots included in the predefined upstream timeslot.

In the event when the network terminator is a higher order network terminator and the predefined place is a predefined second place, the upstream data packet is also transmitted in such higher order timeslot.